Objectives

Allowing Global Studies of the Sun-Earth System!

The IHY will provide a unique opportunity to coordinate observations from the current impressive fleet of international space missions, with data from ground-based observatories. Unprecedented, simultaneous observations with broad coverage of all associated solar, heliospheric, geospace, and atmospheric phenomena will be obtained. The resulting data will allow global studies of the complete Sun-Earth system.

The scientific objectives of the IHY are to discover physical mechanisms at work, coupling the atmosphere of the Earth to the solar and heliospheric phenomena which drive these processes. It has been obvious for some time that events on the Sun can affect geospace, and even the Earth's climate. The systematic global study of this connection is to be the central theme of the IHY. In view of these aims, we propose the following scientific objectives for the IHY:

- To obtain a coordinated set of observations to study, on Heliophysical scales, the solar-generated events which affect life and climate on Earth
- To document and report these observations and provide a forum for the development of new scientific results utilizing these observations
- To foster international cooperation in the study of Heliophysical phenomena now and in the future
- To communicate the unique scientific results of the IHY to the scientific community as well as to the world population

Data from IHY will be available to scientists of all countries, and the excitement of the scientific results will be communicated to the world through a series of press releases and public lectures.

Public Outreach

Sharing IHY Scientific Results with Students of all Ages!

Education and Public Outreach will also be an important component of the IHY. The main objective will be to ensure that students and the public are aware of the large scale cooperation and coordinated observations being performed throughout the year and its impact on scientific research today and for the future.

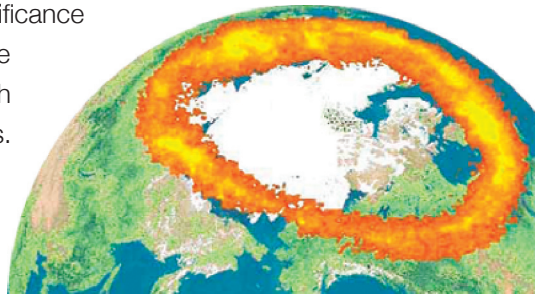
The IHY will organize visits to classrooms in countries around the world by scientists engaged in the IHY effort. It will allow students to actively participate in IHY research as well as organize exhibits and events at local museums and other public venues. Through actively participating in the community, public lectures, press releases and TV and media interviews, the IHY will spread the news and excitement of the large scale international research and discovery underway.

The IHY is an excellent opportunity to get the public's attention on space research and to excite young people on the possibilities of becoming a space scientist and ensuring the future of Space Research!

Space Weather

Space Weather and Us...the Sun-Earth Connection!

The recent explosion of interest in *Space Weather* has excited the media, the general public, as well as many industrial colleagues. However, it has also highlighted the fact that we know relatively little about the true Sun-Earth relationship. The 50th anniversary of the IGY is a tremendous opportunity to sastisfy the growing demand to know more by advancing our understanding of the Sun-Earth system, and demonstrating the beauty, relevance, and significance of Space and Earth Sciences.



Contact

Endless Possibilities for Participation and Information Sharing!

IHY needs you! IHY is in need of scientists willing to participate in campaign coordination, provide linkage with organizations, help create programs and scientific initiatives as well as assist in the development of international collaboration.

If you are interested in participating in the planning and coordination of IHY 2007, please email us at ihy@ihy.gsfc.nasa.gov and let us know how you would like to participate and your areas of interest.

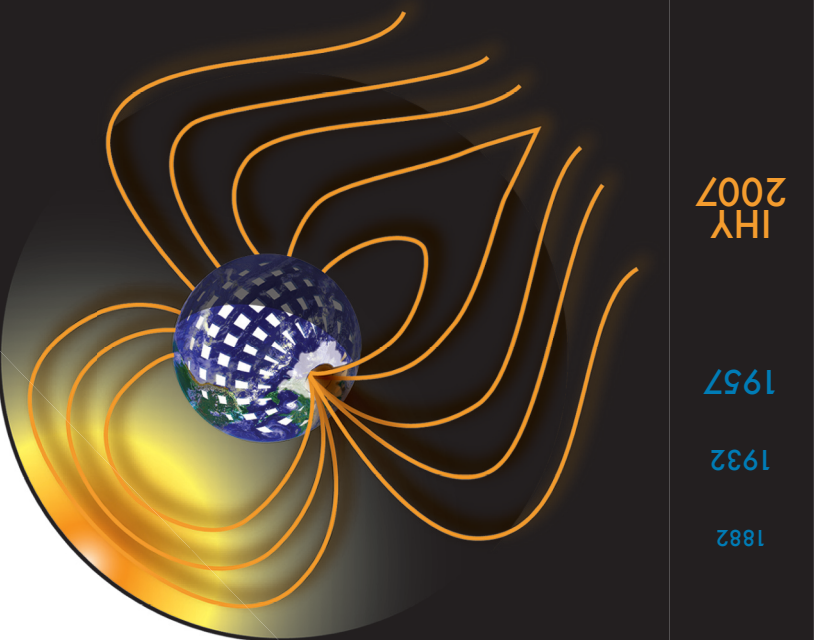
Please take time to visit the web site for more detailed information on IHY, check out upcoming events, and to sign up for the IHY email list.

Heliophysics: a branch of space science dealing with the physical processes and phenomena occurring in the Sun-Heliosphere-Earth connected system

http://ihy.gsfc.nasa.gov

Demonstrating the Beauty, Relevance, and Significance of Space and Earth Science to the World.

Advancing our Understanding of the Heliophysical Processes Which Govern the Sun's Influence on Earth.



INTERNATIONAL HELIOPHYSICAL YEAR

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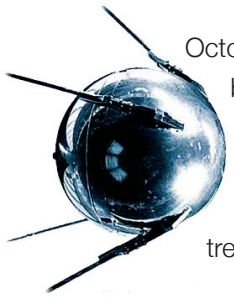
History

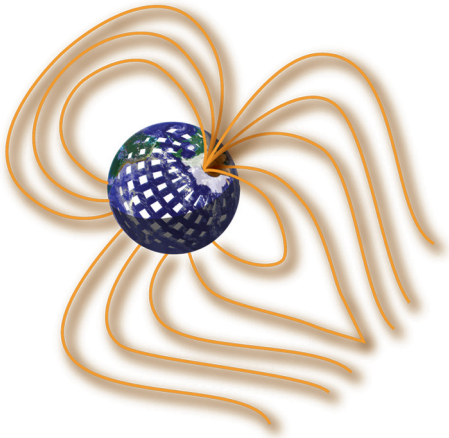
A History of Global Cooperation and Global Observation!

In 1957 a program of international research, inspired by the International Polar Years of 1882-83 and 1932-33, was organized as the International Geophysical Year (IGY). The primary goal of the IGY was to study global phenomena of the Earth and geospace. The IGY involved about 60,000 scientists from 66 nations, working at thousands of stations from pole to pole to obtain simultaneous, global observations on Earth and in space. There had never been anything like it before!



October 4, 1957, three months after the IGY began, Sputnik was launched, announcing the beginning of the Space Age. Sputnik I and III, along with Explorer I and numerous suborbital rocket flights, contributed to the tremendous success of the IGY.

Space science has made tremendous strides in the last 50 years. We now routinely monitor the Sun, the interplanetary medium, along with the atmosphere of Earth from space as well as from the ground.



On the fiftieth anniversary of the International Geophysical Year in 2007 an international program of scientific collaboration, the International Heliophysical Year (IHY), will be conducted. Like its predecessors, the IHY will focus on fundamental global questions of Earth science.